November 18, 2002

RE: Gemtron Corporation 083-15882-00012

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky

Chief, Permits Branch Office of Air Quality

### **Notice of Decision: Approval - Effective Immediately**

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, within (18) eighteen days of the mailing of this notice. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for consideration at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure FNPERMOD.wpd 8/21/02

November 18, 2002

Mr. Curtis Johnson Gemtron Corporation 2000 Chestnut Street Vincennes, Indiana 47591

Re: 083-15882

First Minor Permit Revision to MSOP 083-13656-00012

Dear Mr. Johnson:

Gemtron Corporation was issued a minor source operating permit on June 13, 2001 for a glass tempering and coating source. A letter requesting a revision to this permit was received on July 16, 2002. Pursuant to the provisions of 326 IAC 2-6.1-6 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the construction of five (5) new process lines, with the total potential to emit from these lines of 22.5 tons per year of VOC. Also, EU-10 has been moved to a different location at the source. There also has been the addition of three (3) maintenance operations which should have been included in the original Minor Source Operating Permit.

The following construction conditions are applicable to the proposed project:

- 1. The data and information supplied with the application shall be considered part of this permit revision approval. Prior to <u>any</u> proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
- 2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
- 3. Pursuant to IC 13-15-5-3, this approval to construct becomes effective upon its issuance.
- 4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
- 5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-6.1-6, the minor source operating permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this permit revision which includes this letter and the attached operating conditions applicable to these emission units. For your convenience, the entire MSOP, with all revisions made to it, is being provided.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Craig J. Friederich, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext. 19 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief Permits Branch Office of Air Quality

Attachments CJF:MES

cc: File - Knox County

U.S. EPA, Region V

Knox County Health Department Southwest Regional Office

Air Compliance Section Inspector - Scott Anslinger

Compliance Branch - Karen Nowak

Administrative and Development - Lisa Lawrence Technical Support and Modeling - Michele Boner



### Indiana Department of Environmental Management

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon Governor

Lori F. Kaplan Commissioner 100 North Senate Avenue P. O. Box 6015 Indianapolis, Indiana 46206-6015 (317) 232-8603 (800) 451-6027 www.IN.gov/idem

# MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

### Gemtron Corporation 2000 Chestnut Street Vincennes, Indiana 47591

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 083-13656-00012	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 13, 2001 Expiration Date: June 13, 2006

First Notice Only Change 083-14672-00012, issued August 21, 2001

First Minor Permit Revision 083-15882-00012	Conditions Affected: A.2, D.1.1, D.1.2, D.3.1 Sections Affected: D.1, D.2, D.3
Original signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 18, 2002

#### First Minor Permit Revision 083-15882-00012 Revised By: MES

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 **Gemtron Corporation** Vincennes, Indiana

Permit Reviewer: CJF/MES

First Minor Permit Revision 083-15882-00012

Revised By: MES

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#### **SECTION A**

#### **SOURCE SUMMARY**

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 and A.2 are descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

#### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary glass tempering and coating source.

Authorized Individual: Robert Glenn

Source Address: 2000 Chestnut Street, Vincennes, Indiana 47591 Mailing Address: 2000 Chestnut Street, Vincennes, Indiana 47591

Phone Number: 812-882-2680

SIC Code: 3231 County Location: Knox

County Status: Attainment for all criteria pollutants Source Status: Minor Source Operating Permit Minor Source, under PSD Rules:

Minor Source, Section 112 of the Clean Air Act

#### A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) Two (2) heat treatment lines 3 & 4, identified as EU-02, exhausting to Stack DO-1C and Stack DO-2C, installed in January 1988, capacity: 3,049 pounds of glass per hour, total, including the following equipment:
  - (1) Two (2) silk screening machines, capacity: 0.81 pounds of paint per hour, each.
  - (2) One (1) electric tempering furnace.
  - (3)One (1) air quenching operation.
- (b) Two (2) heat treatment lines 1 & 2, identified as EU-01, installed in February 1991, capacity: 4,854 pounds of glass per hour total, including the following equipment:
  - (1) Three (3) silk screening machines, capacity: 1.35 pounds of paint per hour, each.
  - (2) One (1) glass tech electric tempering furnace.
  - (3)One (1) air quenching operation.
- One (1) heat treatment line 5, identified as EU-13, capacity: 3,050 pounds of glass per hour. (c) total, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 0.81 pounds of paint per hour
  - (2) Two (2) glass edging units

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- (d) One (1) CERAN processing line, identified as EU-03, exhausting to Stacks CO-1B through CO-9B and Stacks C0-1C through C0-5C, installed in November 1993, capacity: 4,193 pounds of glass per hour, including the following equipment:
  - (1) Two (2) silk screening machines, capacity: 2.50 pounds of paint per hour, each.
  - (2) Three (3) electric tempering furnaces.
  - (3) Three (3) cooling conveyors.
- (e) One (1) spray cleaning operation, identified as EU-04, equipped with solids filters, exhausting to stack XY-1C, installed in February 1991, capacity: 1.5 gallons of solvent per hour, consisting of the following equipment:
  - (1) One (1) solvent recovery still.
  - (2) One (1) wash booth #1 used for air grinding.
  - (3) One (1) wash booth #2 used for silk screen and paint removal, capacity: 5.49 pounds of solvent per hour.
- (f) One (1) heavy tempering line (HT-6), known as EU-14, exhausted through stack W-01, to be installed, capacity: 893 pounds of glass per hour total, including the following equipment:
  - (1) Two (2) silk screening machines, capacity: 2.45 pounds of paint per hour, each.
  - (2) One (1) slitting unit.
  - (3) Three (3) small edging units.
  - (4) Two (2) small washer units.
  - (5) One (1) Rhonehouse 42 electric drying oven.
  - (6) One (1) whopper machine, used to cut circles in the glass.
  - (7) One (1) nubber operation, which is a wet glass edging operation.
- (g) One (1) heavy tempering line (HT-7), known as EU-15, exhausted through stack W-01, to be installed, capacity: 893 pounds of glass per hour total, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 2.45 pounds of paint per hour.
  - (2) One (1) slitting unit.
  - (3) Two (2) edging units.
  - (4) One (1) washer unit.
  - (5) One (1) stripcutter unit, used to cut the glass.
  - (6) One (1) nubber operation, which is a wet glass edging operation.

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- (h) One (1) circle glass line (F-8), known as EU-16, exhausted through stack H-02, to be installed, capacity: 488 pounds of glass per hour, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 1.34 pounds of paint per hour.
  - (2) One (1) slitting unit.
  - (3) One (1) edging unit.
  - (4) One (1) washer unit.
  - (5) One (1) whopper machine, used to cut circles in the glass.
- (i) One (1) small parts line (F-9), identified as EU-17, exhausted through stacks W-01 or H-02, to be installed, capacity: 425 pounds of glass per hour, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 1.34 pounds of paint per hour.
  - (2) Two (2) edging units.
  - (3) One (1) washer unit.
  - (4) One (1) nubber operation, which is a wet glass edging operation.
  - (5) One (1) Intermac edger machine, which is a wet glass edging operation.
  - (6) Two (2) vertical edger units.
  - (7) One (1) small part edger.
  - (8) One (1) circle cutter.
  - (9) Two (2) drills, which are a wet glass drilling operation.
  - (10) Four (4) belt sanders.
  - (11) One (1) 2-inch edger, which is a wet glass edging operation.
- (j) One (1) CERAN new furnace line, identified as EU-18, exhausted through Stack W-03, to be installed, capacity: 1,398 pounds of glass per hour, including the following equipment:
  - (1) One (1) electric tempering furnace.
  - (2) One (1) cooling conveyor.
- (k) Sixteen (16) plastic molding machines, identified as EU-05, installed in 1994 1995, capacity: 32.15 pounds of polypropylene per hour, each.
- (I) One (1) glass edge grinding operation, identified as EU-10, equipped with a particulate fiber filter for PM control (the control device does not have to be in operation at all times), exhausted to Stack WR-01, installed in 1991, and relocated within the source in 2002, capacity: 0.274 pounds of glass per hour.

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- (m) One (1) CERAN strip wash operation, identified as EU-12, exhausting to Stack WV-1D, installed in 1995, capacity: 60 glass panels per hour.
- (n) Two (2) emergency generators, identified as EU-06, firing diesel fuel, exhausting to stacks EP-1C and EP-2C, installed in 1991 - 1998, rated at: 0.5 million British thermal units per hour, total, operating at 500 hours per year or less, each.
- (o) Forty-nine (49) building work natural gas-fired space heaters, identified as EU-07, installed between 1988 1998, rated at: 4.785 million British thermal units per hour, total.
- (p) Four (4) natural gas-fired space heaters, exhausting to Stacks GF-1D, GF-2D, GF-3D and GF-1H, rated at 0.45 million British thermal units per hour, total.
- (q) One (1) maintenance degreaser, identified as EU-19, with a potential to emit VOC of 0.139 tons per year.
- (r) One maintenance metal grinding operation, identified as EU-09, with a potential to emit PM of 0.06 tons per year.
- (s) Maintenance welding operations, identified as EU-08, consisting of the following:
  - (1) Eight (8) Metal Inert Gas (MIG) welding stations, capacity: 0.05 pounds of wire per hour, each.
  - (2) Four (4) Stick welding stations, capacity: 0.20 pounds of wire per hour, each.
  - (3) Two (2) Tungsten Inert Gas (TIG) welding stations, capacity: 0.10 pounds of wire per hour, each.

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#### **SECTION B**

#### **GENERAL CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

#### B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

#### B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

#### B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

#### B.4 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of operating permits pursuant to 326 IAC 2 (Permit Review Rules).

#### B.5 Minor Source Operating Permit [326 IAC 2-6.1]

- (a) This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1
- (b) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).
- (c) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in this permit. If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

#### First Minor Permit Revision 083-15882-00012 Revised By: MES

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#### **SECTION C**

#### **SOURCE OPERATION CONDITIONS**

#### **Entire Source**

#### C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of all criteria pollutants is less than two hundred fifty (250) tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit PM<sub>10</sub>, SO<sub>2</sub>, VOC, NO<sub>χ</sub> or CO to 100 tons per year from this source, shall cause this source to be considered a major source under 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.

#### C.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-7]

Any change or modification which may increase potential to emit to ten (10) tons per year of any single hazardous air pollutant, twenty-five (25) tons per year of any combination of hazardous air pollutants from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.

#### C.3 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

#### C.4 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

#### First Minor Permit Revision 083-15882-00012 Revised By: MES

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Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

#### C.5 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

### C.6 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to 326 IAC 2-6.1-6(d)(3):

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by a notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### C.7 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

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- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

#### C.8 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

#### C.9 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

#### **Testing Requirements**

#### C.10 Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]

(a) Compliance testing on new emissions units shall be conducted within sixty (60) days after achieving maximum production rate, but no later than one hundred eighty (180) days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAQ, within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

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The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### **Compliance Monitoring Requirements**

#### C.11 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

#### C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

#### C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### **Record Keeping and Reporting Requirements**

#### C.14 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

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- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a) (1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

#### C.15 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

#### C.16 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;

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- (5) The results of such analyses; and
- (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C Compliance Monitoring Plan Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

#### C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) A malfunction as described in 326 IAC 1-6-2; or

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- (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
- (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

- (e) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (f) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

#### C.18 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality Indiana Department of Environmental Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

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#### **SECTION D.1**

#### **EMISSIONS UNIT OPERATION CONDITIONS**

#### **Emissions Unit Description:**

- (a) Two (2) heat treatment lines 3 & 4, identified as EU-02, exhausting to Stack DO-1C and Stack DO-2C, installed in January 1988, capacity: 3,049 pounds of glass per hour, total, including the following equipment:
  - (1) Two (2) silk screening machines, capacity: 0.81 pounds of paint per hour, each.
  - (2) One (1) electric tempering furnace.
  - (3) One (1) air quenching operation.
- (b) Two (2) heat treatment lines 1 & 2, identified as EU-01, installed in February 1991, capacity: 4,854 pounds of glass per hour total, including the following equipment:
  - (1) Three (3) silk screening machines, capacity: 1.35 pounds of paint per hour, each.
  - (2) One (1) glass tech electric tempering furnace.
  - (3) One (1) air quenching operation.
- (c) One (1) heat treatment line 5, identified as EU-13, capacity: 3,050 pounds of glass per hour, total, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 0.81 pounds of paint per hour
  - (2) Two (2) glass edging units
- (d) One (1) CERAN processing line, identified as EU-03, exhausting to Stacks CO-1B through CO-9B and Stacks CO-1C through C0-5C, installed in November 1993, capacity: 4,193 pounds of glass per hour, including the following equipment:
  - (1) Two (2) silk screening machines, capacity: 2.50 pounds of paint per hour, each.
  - (2) Three (3) electric tempering furnaces.
  - (3) Three (3) cooling conveyors.
- (e) One (1) spray cleaning operation, identified as EU-04, equipped with solids filters, exhausting to stack XY-1C, installed in February 1991, capacity: 1.5 gallons of solvent per hour, consisting of the following equipment:
  - (1) One (1) solvent recovery still.
  - (2) One (1) wash booth #1 used for air grinding.
  - One (1) wash booth #2 used for silk screen and paint removal, capacity: 5.49 pounds of solvent per hour.
- (f) One (1) heavy tempering line (HT-6), known as EU-14, exhausted through stack W-01, to be installed, capacity: 893 pounds of glass per hour total, including the following equipment:
  - (1) Two (2) silk screening machines, capacity: 2.45 pounds of paint per hour, each.
  - (2) One (1) slitting unit.
  - (3) Three (3) small edging units.
  - (4) Two (2) small washer units.
  - (5) One (1) Rhonehouse 42 electric drying oven.
  - (6) One (1) whopper machine, used to cut circles in the glass.
  - (7) One (1) nubber operation, which is a wet glass edging operation.

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#### SECTION D.1

#### **EMISSIONS UNIT OPERATION CONDITIONS**

#### **Emissions Unit Description:** continued

- (g) One (1) heavy tempering line (HT-7), known as EU-15, exhausted through stack W-01, to be installed, capacity: 893 pounds of glass per hour total, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 2.45 pounds of paint per hour.
  - (2) One (1) slitting unit.
  - (3) Two (2) edging units.
  - (4) One (1) washer unit.
  - (5) One (1) stripcutter unit, used to cut the glass.
  - (6) One (1) nubber operation, which is a wet glass edging operation.
- (h) One (1) circle glass line (F-8), known as EU-16, exhausted through stack H-02, to be installed, capacity: 488 pounds of glass per hour, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 1.34 pounds of paint per hour.
  - (2) One (1) slitting unit.
  - (3) One (1) edging unit.
  - (4) One (1) washer unit.
  - (5) One (1) whopper machine, used to cut circles in the glass.
- (i) One (1) small parts line (F-9), identified as EU-17, exhausted through stacks W-01 or H-02, to be installed, capacity: 425 pounds of glass per hour, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 1.34 pounds of paint per hour.
  - (2) Two (2) edging units.
  - (3) One (1) washer unit.
  - (4) One (1) nubber operation, which is a wet glass edging operation.
  - (5) One (1) Intermac edger machine, which is a wet operation.
  - (6) Two (2) vertical edger units.
  - (7) One (1) small part edger.
  - (8) One (1) circle cutter.
  - (9) Two (2) drills, which are a wet glass drilling operation.
  - (10) Four (4) belt sanders.
  - (11) One (1) 2-inch edger, which is a wet glass edging operation.
- (j) One (1) CERAN new furnace line, identified as EU-18, exhausted through Stack W-03, to be installed, capacity: 1,398 pounds of glass per hour, including the following equipment:
  - (1) One (1) electric tempering furnace.
  - (2) One (1) cooling conveyor.
- (k) Sixteen (16) plastic molding machines, identified as EU-05, installed in 1994 1995, capacity: 32.15 pounds of polypropylene per hour, each.
- (I) One (1) glass edge grinding operation, identified as EU-10, equipped with a cartridge fiber filter for PM control, exhausting to Stack WR-01, installed in 1991, and relocated within the source in 2002, capacity: 0.274 pounds of glass per hour.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

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#### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the one (1) glass edge grinding operation, identified as EU-10, shall not exceed 0.722 pounds per hour when operating at a process weight rate of 150 pounds per hour. The particle fiber filter is a voluntary control device.
- (b) The allowable PM emission rate from the four (4) belt sanders, associated with EU-17, shall not exceed 1.45 pounds per hour, total, when operating at a process weight rate of 425 pounds per hour, using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$  where E = rate of emission in pounds per hour and P = process weight rate in tons per hour.

#### D.1.2 Volatile Organic Compounds [326 IAC 8-1-6]

Any change or modification which would increase the potential to emit VOC to twenty-five (25) tons per year or more from any of the following emission units shall obtain prior approval from IDEM, OAQ: EU-01, EU-02, EU-03, EU-04, EU-05, EU-10, EU-13, EU-14, EU-15, EU-16, EU-17, and/or EU-18.

#### Compliance Determination Requirements [326 IAC 2-1.1-11]

There are no specific Compliance Determination Requirements applicable to these emission units.

#### Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

There are no specific Compliance Monitoring Requirements applicable to these emission units.

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#### **SECTION D.2**

#### **EMISSIONS UNIT OPERATION CONDITIONS**

#### **Emissions Unit Description:**

- (m) One (1) CERAN strip wash operation, identified as EU-12, exhausting to Stack WV-1D, installed in 1995, capacity: 60 glass panels per hour
- (n) Two (2) emergency generators, identified as EU-06, firing diesel fuel, exhausting to stacks EP-1C and EP-2C, installed in 1991 1998, rated at: 0.5 million British thermal units per hour, total, operating at 500 hours per year or less, each.
- (o) Forty-nine (49) building work natural gas-fired space heaters, identified as EU-07, installed between 1988 1998, rated at: 4.785 million British thermal units per hour, total.
- (p) Four (4) natural gas-fired space heaters, exhausting to Stacks GF-1D, GF-2D, GF-3D and GF-1H, rated at 0.45 million British thermal units per hour, total.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

#### D.2.1 Volatile Organic Compounds (VOC)

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the cold cleaner degreaser (EU-12) without remote solvent reservoirs constructed after July 1, 1990, shall ensure that the following requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

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- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
  - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
  - (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

#### D.2.2 Hours of Operation

Each of the two (2) emergency generators shall operate no more than five-hundred (500) hours per year.

#### Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

#### D.2.3 Hours of Operation

In order to show compliance with D.2.2, the permittee shall record the number of hours of operation of each emergency generator per month.

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#### **SECTION D.3**

#### **EMISSIONS UNIT OPERATION CONDITIONS**

#### **Emissions Unit Description:**

- (q) One (1) maintenance degreaser, identified as EU-19, with a potential to emit VOC of 0.139 tons per year.
- (r) One maintenance metal grinding operation, identified as EU-09, with a potential to emit PM of 0.06 tons per year.
- (s) Maintenance welding operations, identified as EU-08, consisting of the following:
  - (1) Eight (8) Metal Inert Gas (MIG) welding stations, capacity: 0.05 pounds of wire per hour, each.
  - (2) Four (4) Stick welding stations, capacity: 0.20 pounds of wire per hour, each.
  - (3) Two (2) Tungsten Inert Gas (TIG) welding stations, capacity: 0.10 pounds of wire per hour, each.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

#### D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the cold cleaner degreaser (one (1) maintenance degreaser, identified as EU-19), shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

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- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
  - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
  - (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**Company Name:** 

Address:

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# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE BRANCH

## MINOR SOURCE OPERATING PERMIT ANNUAL NOTIFICATION

**Gemtron Corporation** 

2000 Chestnut Street

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

City:	Vincennes, India	na 47591									
Phone #:	812-882-2680	12-882-2680									
MSOP #:	083-13656-00012										
hereby certify that	Gemtron Corporation is	<ul><li>9 still in operation.</li><li>9 no longer in operation.</li></ul>									
hereby certify that	Gemtron Corporation is	<ul> <li>9 in compliance with the requirements of MSOP 083-13656-00012.</li> <li>9 not in compliance with the requirements of MSOP 083-13656-00012.</li> </ul>									
Authorized Indivi	dual (typed):										
Title:											
Signature:											
Date:											
		which the source is not in compliance, provide a narrative ve compliance and the date compliance was, or will be									
Noncompliance:											

# Indiana Department of Environmental Management Office of Air Quality

# Technical Support Document (TSD) for a Minor Permit Revision to a Minor Source Operating Permit

#### Source Background and Description

Source Name: Gemtron Corporation

Source Location: 2000 Chestnut Street, Vincennes, Indiana 47591

County: Knox SIC Code: 3231

Operation Permit No.: MSOP 083-13656-00012

Operation Permit Issuance Date: June 13, 2001

Minor Permit Revision No.: MPR 083-15882-00012
Permit Reviewer: Craig J. Friederich

The Office of Air Quality (OAQ) has reviewed a revision application from Gemtron Corporation relating to the construction and operation of the following emission units and pollution control devices, which are used for glass tempering and coating:

- (a) One (1) heavy tempering line (HT-6), known as EU-14, exhausted through stack W-01, to be installed, capacity: 893 pounds of glass per hour total, including the following equipment:
  - (1) Two (2) silk screening machines, capacity: 2.45 pounds of paint per hour, each.
  - (2) One (1) slitting unit.
  - (3) Three (3) small edging units.
  - (4) Two (2) small washer units.
  - (5) One (1) Rhonehouse 42 electric drying oven.
  - (6) One (1) whopper machine, used to cut circles in the glass.
  - (7) One (1) nubber operation, which is a wet glass edging operation.
- (b) One (1) heavy tempering line (HT-7), known as EU-15, exhausted through stack W-01, to be installed, capacity: 893 pounds of glass per hour total, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 2.45 pounds of paint per hour.
  - (2) One (1) slitting unit.
  - (3) Two (2) edging units.
  - (4) One (1) washer unit.
  - (5) One (1) stripcutter unit, used to cut the glass.

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- (6) One (1) nubber operation, which is a wet glass edging operation.
- (c) One (1) circle glass line (F-8), known as EU-16, exhausted through stack H-02, to be installed, capacity: 488 pounds of glass per hour, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 1.34 pounds of paint per hour.
  - (2) One (1) slitting unit.
  - (3) One (1) edging unit.
  - (4) One (1) washer unit.
  - (5) One (1) whopper machine, used to cut circles in the glass.
- (d) One (1) small parts line (F-9), identified as EU-17, exhausted through stacks W-01 or H-02, to be installed, capacity: 425 pounds of glass per hour, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 1.34 pounds of paint per hour.
  - (2) Two (2) edging units.
  - (3) One (1) washer unit.
  - (4) One (1) nubber operation, which is a wet glass edging operation.
  - (5) One (1) Intermac edger machine, which is a wet glass edging operation.
  - (6) Two (2) vertical edger units.
  - (7) One (1) small part edger.
  - (8) One (1) circle cutter.
  - (9) Two (2) drills, which are a wet glass drilling operation.
  - (10) Four (4) belt sanders.
  - (11) One (1) 2-inch edger, which is a wet glass edging operation.
- (e) One (1) CERAN new furnace line, identified as EU-18, exhausted through stack W-03, to be installed, capacity: 1,398 pounds of glass per hour, including the following equipment:
  - (1) One (1) electric tempering furnace.
  - (2) One (1) cooling conveyor.

#### Permitted Emission Units Being Relocated within the Source:

(f) One (1) glass edge grinding operation, identified as EU-10, equipped with a particulate fiber filter for PM control (the control device does not have to be in operation at all times), exhausted through stack WR-01, installed in 1991, and relocated within the source in 2002, capacity: 0.274 pounds of glass per hour.

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#### Emission Units Inadvertently Not Included in MSOP 083-13656-00012, issued June 13, 2001:

(g) One (1) maintenance degreaser, identified as EU-19, with a potential to emit VOC of 0.139 tons per year.

- (h) One maintenance metal grinding operation, identified as EU-09, with a potential to emit PM of 0.06 tons per year.
- (i) Maintenance welding operations, identified as EU-08, consisting of the following:
  - (1) Eight (8) Metal Inert Gas (MIG) welding stations, capacity: 0.05 pounds of wire per hour, each.
  - (2) Four (4) Stick welding stations, capacity: 0.20 pounds of wire per hour, each.
  - (3) Two (2) Tungsten Inert Gas (TIG) welding stations, capacity: 0.10 pounds of wire per hour, each.

The total potential to emit of all criteria pollutants from the maintenance operations (g, h and i above), which were inadvertently not included in MSOP 083-13656-00012, are all less than 0.50 tons per year.

#### **History**

On July 16, 2002, Gemtron Corporation submitted an application to the OAQ requesting to add additional process lines to their existing plant. Gemtron Corporation was issued a Minor Source Operating Permit (MSOP) on June 13, 2001.

#### **Enforcement Issue**

There are no enforcement actions pending.

#### **Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
W-01	Process Lines EU-14, EU-15, EU-17	TBD	TBD	TBD	TBD
H-02	Process Lines EU-16, EU-17	TBD	TBD	TBD	TBD
W-03	Process Line EU-18	TBD	TBD	TBD	TBD

#### Recommendation

The staff recommends to the Commissioner that the MSOP Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

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An application for the purposes of this review was received on July 16, 2002. Additional information was received on August 21, August 26, and September 3, 2002.

#### **Emission Calculations**

See pages 1 through 4 of 4 of Appendix A of this document for detailed VOC emissions calculations.

The source has estimated that PM emissions from the belt sanders associated with EU-17 are 5.01 tons per year, based on the following calculation:

0.0283 in<sup>3</sup>/piece removed

400 pieces/hr X 0.0283 in<sup>3</sup>/piece = 11.32 in<sup>3</sup>/hr

(11.32 in<sup>3</sup>/hr / 1728 in<sup>3</sup>/ft<sup>3</sup>) X (2.8 spec. grav. glass X 62.4 lbs/ft<sup>3</sup>) = 1.144 lbs/hr PM produced

(1.144 lbs/hr X 24 hrs/day X 365 days/yr) / 2000 lbs/ton = 5.01 tons/yr of PM produced

#### **Potential To Emit of Revision**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	5.01
PM <sub>10</sub>	5.01
SO <sub>2</sub>	
VOC	24.6
CO	
NO <sub>X</sub>	
HAPs	Potential To Emit (tons/year)
Xylene	Negligible
TOTAL	Negligible

#### **Justification for Revision**

The MSOP is being revised through a MSOP Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-6.1-6(g)(4)(B), "Modifications that would have the potential to emit less than twenty-five (25) tons per year and equal to or greater than ten (10) tons per year of Volatile Organic Compounds (VOCs) and the potential to emit twenty-five (25) tons per year and greater than five (5) tons per year of Particulate matter (PM) or particulate matter less than ten (10) microns  $(PM_{10})$ ."

#### **County Attainment Status**

The source is located in Knox County.

Pollutant	Status
PM <sub>10</sub>	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
СО	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Knox County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Knox County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
  Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2
  and since there are no applicable New Source Performance Standards that were in effect
  on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD
  and Emission Offset applicability.

#### **Source Status**

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited), including the maintenance welding, degreasing and metal grinding operations:

Pollutant	Emissions (tons/year)
PM	1.47
PM <sub>10</sub>	1.52
SO <sub>2</sub>	0.348
VOC	42.2
со	1.81
$NO_X$	2.56

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- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of two-hundred fifty (250) tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the TSD for MSOP 083-13656-00012 issued on June 13, 2001 as well as emissions from the Notice Only Change 083-14672-00012 issued on August 21, 2001.

#### Potential to Emit of Revision After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units.

		Potential to Emit (tons/year)												
Process/facility	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	СО	NO <sub>x</sub>	HAPs							
Proposed Revision	5.01	5.01		24.6			negligible							
Existing Equipment														
Process Lines 1 and 2 (EU-01)				4.11										
Process Lines 3 and 4 (EU-02)				2.11										
Two (2) Electric Tempering Furnaces Located on EU-01 and EU- 02			0.30	ł	ł									
CERAN Processing Line (EU-03)				5.19			0.01							
Solvent Cleaning Station (EU-04)				24.09										
Sixteen (16) Plastic				0.79										
Two (2) Diesel 0.039 Fired Emergency Generators (EU-06)		0.039	0.036	0.045	0.119	0.551								
Forty-Nine (49) 0.038 Space Heaters (EU-07)		0.153	0.012	0.111	1.69	2.01	0.038							
One (1) Glass Edge Grinding Operation (EU-10)	0.004	0.004					0.005							

	Potential to Emit (tons/year)											
Process/facility	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	СО	NO <sub>x</sub>	HAPs					
One (1) CERAN Glass Recovery Unit (EU-12)				3.94								
Process Line 5 (EU-13)				1.74								
Maintenance Degreaser (EU-19)				0.139								
Maintenance Metal Grinding(EU-09)	0.06	negligible	1		1							
Maintenance Welding (EU-08)	0.12	0.12					negligible					
Total (Proposed 5.27 Revision and Existing)		5.33	0.348	66.9	1.81	2.56	0.053					
MSOP Threshold Level	100	100	100	100	100	100	10/25					

This revision to the existing MSOP will **not** change the status of the stationary source because the potential emissions from the entire source will still be less than the Part 70 major source thresholds.

#### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed revision.
- (b) The maintenance degreaser is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Subpart T because the degreaser does not use any of the halogenated solvents listed in this subpart.

#### State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

(a) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the particulate matter (PM) from the four (4) belt sanders, associated with EU-17, shall be limited to 1.45 pounds per hour, total, at a process weight rate of 425 pounds per hour, using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$
 where  $E =$  rate of emission in pounds per hour and  $P =$  process weight rate in tons per hour

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The potential PM emission rate is:

 $5.01 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 1.14 \text{ lb/hr}$ 

Therefore, the four (4) belt sanders associated with EU-17 are in compliance with this limit.

(b) The maintenance metal grinding and the maintenance welding operations are exempt from the requirements of 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) because the potential to emit from these facilities are less than 0.551 pounds per hour.

326 IAC 8-1-6 (New facilities; General reduction requirements)

The five (5) new emission units, identified as EU-14, EU-15, EU-16, EU-17 and EU-18, are not subject to the requirements of 326 IAC 8-1-6 because the potential to emit VOC is less than twenty-five (25) tons per year for each emission unit.

326 IAC 8-3-5 (Organic Solvent Degreasing Operations)

Since the source does not know the date of installation of the one (1) maintenance degreaser, the worst-case is assumed. Therefore, the one (1) maintenance degreaser is subject to the provisions of 326 IAC 8-3-5 (Organic solvent degreasing operations: cold cleaner degreaser operation and control). Pursuant to 326 IAC 8-3-5, the owner or operator of a cold cleaner degreaser operation shall:

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser shall ensure that the following requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

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(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
  - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
  - (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

#### **Proposed Changes**

The permit language is changed to read as follows (deleted language appears as strikeouts, new language appears in bold):

#### A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (f) One (1) heavy tempering line (HT-6), known as EU-14, exhausted through stack W-01, to be installed, capacity: 893 pounds of glass per hour total, including the following equipment:
  - (1) Two (2) silk screening machines, capacity: 2.45 pounds of paint per hour, each.
  - (2) One (1) slitting unit.
  - (3) Three (3) small edging units.
  - (4) Two (2) small washer units.

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- (5) One (1) Rhonehouse 42 electric drying oven.
- (6) One (1) whopper machine, used to cut circles in the glass.
- (7) One (1) nubber operation, which is a wet glass edging operation.
- (g) One (1) heavy tempering line (HT-7), known as EU-15, exhausted through stack W-01, to be installed, capacity: 893 pounds of glass per hour total, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 2.45 pounds of paint per hour.
  - (2) One (1) slitting unit.
  - (3) Two (2) edging units.
  - (4) One (1) washer unit.
  - (5) One (1) stripcutter unit, used to cut the glass.
  - (6) One (1) nubber operation, which is a wet glass edging operation.
- (h) One (1) circle glass line (F-8), known as EU-16, exhausted through stack H-02, to be installed, capacity: 488 pounds of glass per hour, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 1.34 pounds of paint per hour.
  - (2) One (1) slitting unit.
  - (3) One (1) edging unit.
  - (4) One (1) washer unit.
  - (5) One (1) whopper machine, used to cut circles in the glass.
- (i) One (1) small parts line (F-9), identified as EU-17, exhausted through stacks W-01 or H-02, to be installed, capacity: 425 pounds of glass per hour, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 1.34 pounds of paint per hour.
  - (2) Two (2) edging units.
  - (3) One (1) washer unit.
  - (4) One (1) nubber operation, which is a wet glass edging operation.
  - (5) One (1) Intermac edger machine, which is a wet operation.
  - (6) Two (2) vertical edger units.

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- (7) One (1) small part edger.
- (8) One (1) circle cutter.
- (9) Two (2) drills, which are a wet glass drilling operation.
- (10) Four (4) belt sanders.
- (11) One (1) 2-inch edger, which is a wet glass edging operation.
- (j) One (1) CERAN new furnace line, identified as EU-18, exhausted through Stack W-03, to be installed, capacity: 1,398 pounds of glass per hour, including the following equipment:
  - (1) One (1) electric tempering furnace.
  - (2) One (1) cooling conveyor.
- (**f k**) Sixteen (16) plastic molding machines, identified as EU-05, installed in 1994 1995, capacity: 32.15 pounds of polypropylene per hour, each.
- (g I) One (1) glass edge grinding operation, identified as EU-10, equipped with a particulate fiber filter for PM control (the control device does not have to be in operation at all times), exhausted to Stack XY-1C WR-01, installed in 1991, and relocated within the source in 2002, capacity: 0.274 pounds of glass per hour.
- (h m) One (1) CERAN strip wash operation, identified as EU-12, exhausting to Stack WV-1D, installed in 1995, capacity: 60 glass panels per hour.
- (in) Two (2) emergency generators, identified as EU-06, firing diesel fuel, exhausting to stacks EP-1C and EP-2C, installed in 1991 1998, rated at: 0.5 million British thermal units per hour, total, operating at 500 hours per year or less, each.
- (jo) Forty-nine (49) building work natural gas-fired space heaters, identified as EU-07, installed between 1988 1998, rated at: 4.785 million British thermal units per hour, total.
- (**k p**) Four (4) natural gas-fired space heaters, exhausting to Stacks GF-1D, GF-2D, GF-3D and GF-1H, rated at 0.45 million British thermal units per hour, total.
- (q) One (1) maintenance degreaser, identified as EU-19, with a potential to emit VOC of 0.139 tons per year.
- (r) One maintenance metal grinding operation, identified as EU-09, with a potential to emit PM of 0.06 tons per year.
- (s) Maintenance welding operations, identified as EU-08, consisting of the following:
  - (1) Eight (8) Metal Inert Gas (MIG) welding stations, capacity: 0.05 pounds of wire per hour, each.
  - (2) Four (4) Stick welding stations, capacity: 0.20 pounds of wire per hour, each.

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(3) Two (2) Tungsten Inert Gas (TIG) welding stations, capacity: 0.10 pounds of wire per hour, each.

#### SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

#### **Emissions Unit Description:**

- (f) One (1) heavy tempering line (HT-6), known as EU-14, exhausted through stack W-01, to be installed, capacity: 893 pounds of glass per hour total, including the following equipment:
  - (1) Two (2) silk screening machines, capacity: 2.45 pounds of paint per hour, each.
  - (2) One (1) slitting unit.
  - (3) Three (3) small edging units.
  - (4) Two (2) small washer units.
  - (5) One (1) Rhonehouse 42 electric drying oven.
  - (6) One (1) whopper machine, used to cut circles in the glass.
  - (7) One (1) nubber operation, which is a wet glass edging operation.
- (b) One (1) heavy tempering line (HT-7), known as EU-15, exhausted through stack W-01, to be installed, capacity: 893 pounds of glass per hour total, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 2.45 pounds of paint per hour.
  - (2) One (1) slitting unit.
  - (3) Two (2) edging units.
  - (4) One (1) washer unit.
  - (5) One (1) stripcutter unit, used to cut the glass.
  - (6) One (1) nubber operation, which is a wet glass edging operation.
- (h) One (1) circle glass line (F-8), known as EU-16, exhausted through stack H-02, to be installed, capacity: 488 pounds of glass per hour, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 1.34 pounds of paint per hour.
  - (2) One (1) slitting unit.
  - (3) One (1) edging unit.
  - (4) One (1) washer unit.
  - (5) One (1) whopper machine, used to cut circles in the glass.

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#### SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

#### **Emissions Unit Description:**

- (i) One (1) small parts line (F-9), identified as EU-17, exhausted through stacks W-01 or H-02, to be installed, capacity: 425 pounds of glass per hour, including the following equipment:
  - (1) One (1) silk screening machine, capacity: 1.34 pounds of paint per hour.
  - (2) Two (2) edging units.
  - (3) One (1) washer unit.
  - (4) One (1) nubber operation, which is a wet glass edging operation.
  - (5) One (1) Intermac edger machine, which is a wet operation.
  - (6) Two (2) vertical edger units.
  - (7) One (1) small part edger.
  - (8) One (1) circle cutter.
  - (9) Two (2) drills, which are a wet glass drilling operation.
  - (10) Four (4) belt sanders.
  - (11) One (1) 2-inch edger, which is a wet glass edging operation.
- (j) One (1) CERAN new furnace line, identified as EU-18, exhausted through Stack W-03, to be installed, capacity: 1,398 pounds of glass per hour, including the following equipment:
  - (1) One (1) electric tempering furnace.
  - (2) One (1) cooling conveyor.
- (fk) Sixteen (16) plastic molding machines, identified as EU-05, installed in 1994 1995, capacity: 32.15 pounds of polypropylene per hour, each.
- (gl) One (1) glass edge grinding operation, identified as EU-10, equipped with a cartridge fiber filter for PM control, exhausting to Stack XY-1C WR-01, installed in 1991, and relocated in 2002, capacity: 0.274 pounds of glass per hour.

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]

(b) The allowable PM emission rate from the four (4) belt sanders, associated with EU-17, shall not exceed 1.45 pounds per hour, total, when operating at a process weight rate of 425 pounds per hour, using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$  where E = rate of emission in pounds per hour and P = process weight rate in tons per hour.

#### D.1.2 Volatile Organic Compounds [326 IAC 8-1-6]

Any change or modification which would increase the potential to emit VOC to twenty-five (25) tons per year or more from **any of the following emission units shall obtain prior approval from IDEM, OAQ:** EU-01, EU-02, EU-03, EU-04, EU-05, EU-10, EU-13, **EU-14, EU-15, EU-16, EU-17, and/or EU-18** shall obtain prior approval from IDEM, OAQ.

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#### SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

#### **Emissions Unit Description:**

- (hm) One (1) CERAN strip wash operation, identified as EU-12, exhausting to Stack WV-1D, installed in 1995, capacity: 60 glass panels per hour
- (in) Two (2) emergency generators, identified as EU-06, firing diesel fuel, exhausting to stacks EP-1C and EP-2C, installed in 1991 1998, rated at: 0.5 million British thermal units per hour, total, operating at 500 hours per year or less, each.
- (jo) Forty-nine (49) building work natural gas-fired space heaters, identified as EU-07, installed between 1988 1998, rated at: 4.785 million British thermal units per hour, total.
- (**kp**) Four (4) natural gas-fired space heaters, exhausting to Stacks GF-1D, GF-2D, GF-3D and GF-1H, rated at 0.45 million British thermal units per hour, total.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

#### **Emissions Unit Description:**

- (q) One (1) maintenance degreaser, identified as EU-19, with a potential to emit VOC of 0.139 tons per year.
- (r) One maintenance metal grinding operation, identified as EU-09, with a potential to emit PM of 0.06 tons per year.
- (s) Maintenance welding operations, identified as EU-08, consisting of the following:
  - (1) Eight (8) Metal Inert Gas (MIG) welding stations, capacity: 0.05 pounds of wire per hour, each.
  - (2) Four (4) Stick welding stations, capacity: 0.20 pounds of wire per hour, each.
  - (3) Two (2) Tungsten Inert Gas (TIG) welding stations, capacity: 0.10 pounds of wire per hour, each.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

#### D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the cold cleaner degreaser (one (1) maintenance degreaser, identified as EU-19) shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

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(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));

- (B) The solvent is agitated; or
- (C) The solvent is heated.

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- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
  - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
  - (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or

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transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

#### Conclusion

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed MSOP Minor Permit Revision No. 083-15882-00012.

#### Appendix A: Emissions Calculations **VOC and Particulate** From Surface Coating Operations

Company Name: Gemtron Corporation

Address City IN Zip: 2000 Chestnut Street, Vincennes, Indiana 47591
MSOPRev: 083-15882
Plt ID: 083-00012

Reviewer: Craig J. Friederich Date: June 16, 2002

\*Note: One unit is equal to 100 pounds of glass

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)		Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	i Maximiim		Pounds VOC per gallon of coating	Potential VOC (pounds per hour)		Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
EU-14																
Paint Used in Silkscreening Booth 1	23.00	17.00%	0.0%	17.0%	0.0%	83.00%	0.01380	8.930	3.91	3.91	0.48	11.56	2.11	0.00	4.71	100%
Paint Used in Silkscreening Booth 2	23.00	17.00%	0.0%	17.0%	0.0%	83.00%	0.01380	8.930	3.91	3.91	0.48	11.56	2.11	0.00	4.71	100%
Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)			Pounds VOC per gallon of coating	Potential VOC (pounds per hour)		Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
EU-15																
Paint Used in Silkscreening Booth	23.00	17.00%	0.0%	17.0%	0.0%	83.00%	0.01380	8.930	3.91	3.91	0.48	11.56	2.11	0.00	4.71	100%

	Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	l gallon of coating	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
Γ	EU-16																
	Paint Used in Silkscreening Booth	23.00	17.00%	0.0%	17.0%	0.0%	83.00%	0.02210	4.880	3.91	3.91	0.42	10.12	1.85	0.00	4.71	100%

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)		Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
EU-17																
Paint Used in Silkscreening Booth	23.00	17.00%	0.0%	17.0%	0.0%	83.00%	0.0139	4.25	3.91	3.91	0.23	5.54	1.01	0.00	n/a	100%

PM Control Efficiency 0.00%

State Potential Emissions

Add worst case coating to all solvents

\*Note: Potential VOC emissions from CERDEC 80452 used at EU-03 was obtained from calculations received from source. The density and Gallons of material were unknown

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \* (8760 hrs/yr) \* (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

## Appendix A: Emissions Calculations VOC Potential Emissions

**Company Name: Gemtron Corporation** 

Address City IN Zip: 2000 Chestnut Street, Vincennes, Indiana 47591

MSOPRev: 083-15882
Plt ID: 083-00012
Reviewer: Craig J. Friederich
Date: June 16, 2002

#### Clean Up Solvents Used

	Maximum	Maximum	Maximum
Material	Usage(lbs/	Usage	Usage
	month)	(lbs/yr)	(tons/yr)
EU-14 and EU-15	,		
Solvent 6-96	845	10140	5.07
Acetone	19.75	237	0.12
Total	865	10377	5.19
EU-16			
Solvent 6-96	559	6708	3.35
Acetone	11.25	135	0.07
Total	570.25	6843	3.42
EU-17			
Solvent 6-96	440	5280	2.64
Acetone	7.08	84.96	0.04
Total	447.08	5364.96	2.68
EU-18			
Sergussa 80452	48.4	580.8	0.290
Solvent 6-96	154	1848	0.924
Prestoline HG	44.53	534.36	0.267
Total	246.93	2963.16	1.48

#### Emissions from solvents used to clean the equipment after production:

Sergussa 80452	110	1320	0.66
Miscellaneous Solvent	323	3880	1.94
Total	433.3	5200	2.60

Total Clean Up Solvents Used:

15.37 tons/yr

#### Methodology

VOC Emission Rate (lbs/hr)=Maximum Rate (units/hr) \* Emission Factor (lb/units)
Recycled By Solvent System(tons/yr)=Emission Rate (lbs/hr) \* 8760 hours per year / 2000 pounds per ton
Maximum Potential Emissions(tons/yr)=Recycled By Solvent System (tons/yr) x (1-Percent Solvent Recycled)
\*Note: Estimated Solvent Loss Rate From Inventory

#### Appendix A: Welding and Thermal Cutting

Company Name: Gemtron Corporation

Address City IN Zip: 2000 Chestnut Street, Vincennes, Indiana 47591

MSOPRev: 083-15882
Plt ID: 083-00012
Reviewer: Craig J. Friederich

Date: June 16, 2002

PROCESS	Number of Stations	Max. electrode consumption per station		EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPS (lb/hr)
WELDING	Otations	(lbs/hr)		PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Submerged Arc Metal Inert Gas (MIG)(ER5154) Stick (E7018 electrode) Tungsten Inert Gas (TIG)(carbon steel) Oxyacetylene(carbon steel)	0 8 4 2 0	0.05 0.2 0.1		0.036 0.0241 0.0211 0.0055 0.0055	0.00003		0.00001	0.000 0.010 0.017 0.001 0.000	0 0.0000136 0 0	0.000 0.000 0.000 0.000 0.000	0 4.00E-06 0 0	0.000 0.000 0.000 0.000 0.000
	Number of Stations	Max. Metal Thickness Cut	Max. Metal Cutting Rate	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)			EMISSIONS (lbs/hr)				TOTAL HAPS (lb/hr)	
FLAME CUTTING		(in.)	(in./minute)	PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	<u>[</u>
Oxyacetylene Oxymethane Plasma	0 0 0	0	0 0 0	0.1622 0.0815	0.0005 0.0002	0.0001	0.0003 0.0002	0.000 0.000 0.000	0.000 0.000 0.000	0.000 0.000 0.000	0.000 0.000 0.000	0.000 0.000 0.000
EMISSION TOTALS					*			PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								0.03	0.00	0.00	0.00	0.00
Potential Emissions lbs/day								0.66	0.00	0.00	0.00	0.00
Potential Emissions tons/year								0.12	0.000	0.00	0.00	0.000

#### **METHODOLOGY**

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).

Welding and other flame cutting emission factors are from an internal training session document.

See AP-42, Chapter 12.19 for additional emission factors for welding.

<sup>\*</sup>Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.

## Appendix A: State Potential Emissions Calculations Maintenance Degreasing

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**Company Name: Gemtron Corporation** 

Address City IN Zip: 2000 Chestnut Street, Vincennes, Indiana 47591

MSOPRev: 083-15882 Plt ID: 083-00012

Reviewer: Craig J. Friederich

Date: June 16, 2002

#### **Maintenance Degreasing**

Material	Density (lb/gal)	Weight % Volatile	Weight % Water	Weight % Organics	Gal of Mat (gal/day)	Potential VOC (lb/day)	Potential VOC (ton/yr)
		(H20 & Organics)					
Safety-Kleen Solvent	7.60	100.00%	0.0%	100.0%	0.1	0.760	0.139
State Potential Emissions						0.760	0.139

#### **METHODOLOGY**

Potential VOC Pounds per Day = Solvent Density (lbs/gallon) \* weight % volatiles \* solvent consumption (gallons/day)

Potential VOC Tons per Year = Potential VOC Pounds per Day \* (365 days/yr) \* (1 ton/2000 lbs)